

What is claimed is:

1. An audio speaker system comprising:

a speaker driver for reproducing sound, said speaker driver having a sound reproducing membrane;

a horn having a throat that extends to a mouth; and

an annular gasket that is disposed between said horn and said sound reproducing membrane in an area outside of and adjacent to said throat.

2. An audio speaker system according to claim 1, wherein:

said horn has a first groove formed therein,

said sound reproducing membrane has a second groove formed therein disposed opposite said first groove, and

said annular gasket is disposed in said first and second grooves.

3. An audio speaker system according to claim 2, wherein:

said sound reproducing membrane has a roll suspension, and said second groove is part of said roll suspension.

4. An audio speaker system according to claim 1, wherein:

said annular gasket is formed from a compliant material that absorbs sound.

5. An audio speaker system according to claim 4, wherein:
said compliant material comprises closed cell foam.
6. An audio speaker system according to claim 1, wherein:
said horn has an axi-symmetrical waveguide surface.
7. An audio speaker system according to claim 6, wherein:
said waveguide surface is curvilinear with a smooth flare rate.
8. An audio speaker system according to claim 1, further comprising:
a low frequency speaker in combination with said speaker driver and horn,
wherein said speaker drive and horn are disposed coaxially with said low frequency speaker.
9. An audio speaker system according to claim 8, wherein:
said speaker driver comprises a ring-shaped magnet that provides rear-venting to
a rear compression chamber.
10. An audio speaker system according to claim 9, wherein:
said speaker driver and horn are mounted on a hollow tube, wherein a portion of
said hollow tube provides said rear compression chamber.